

## CLAIMS:

1. A touch sensitive display comprising  
pixels (18), each of the pixels (18) having a pixel electrode (22) and an optical  
state depending on a drive voltage (VD) supplied to the pixel electrode (22), and  
a touch sensitive element (S1) arranged between the pixel electrode (22) and a  
5 further electrode (40;17), the touch sensitive element (S1) having an impedance dependent on  
a mechanical force applied to it.
2. A touch sensitive display as claimed in claim 1, further comprising a sense  
circuit (31) for sensing a voltage on the further electrode (40).
- 10 3. A touch sensitive display as claimed in claim 1, wherein a predetermined  
voltage level (Vpr) is supplied to the further electrode (40).
4. A touch sensitive display as claimed in claim 1, 2 or 3, wherein the touch  
15 sensitive display is a bi-stable display.
5. A touch sensitive display as claimed in claim 1, wherein the touch sensitive  
display is an active matrix display (1) comprising  
select electrodes (17) and data electrodes (11), the pixels (18) being associated  
20 with intersections of the select electrodes (17) and the data electrodes (11),  
a select driver (16) for supplying select voltages (Vs) to the select electrodes  
(17),  
a data driver (10) for supplying data voltages (Vd) to the data electrodes (11),  
electronic switches (19), each being associated with a respective one of the  
25 pixels (18), and  
a controller (15) for controlling the select driver (16) to select the pixels (18)  
associated with at least one of the select electrodes (17) by activating the electronic switches  
(19) being associated with the at least one of the select electrodes (17), and for controlling the

data driver (10) to supply the data voltages (Vd) to the pixel electrodes (22) of the pixels (18) associated with at least one of the select electrodes (17).

6. A touch sensitive display as claimed in claim 5, wherein the touch sensitive display further comprises a voltage source (Vpr) for supplying, within at least a sub-area of the display, a predetermined voltage to the further electrode (40), and wherein with each of the pixels (18) of the sub-area a touch sensitive element (S1) is associated, the controller (15) being arranged for controlling the select driver (16) and the data driver (10) to first bring all the pixels (18) of the sub-area into a predetermined first optical state, and wherein a level of the predetermined voltage (Vpr) is selected to obtain the electronic switches (19) being non-conductive and to obtain a voltage on the pixel electrode (22) causing a change of the optical state of a particular one of the pixels (18) of the sub-area when the mechanical force is applied to the touch sensitive element (S1) associated with this particular pixel (18).

7. A touch sensitive display as claimed in claim 6, wherein the further electrode (40) is divided into a plurality of further electrodes being the select electrodes (17) and the touch sensitive elements (S1) are arranged between the pixel electrodes (22) and the select electrodes (17).

8. A touch sensitive display as claimed in claim 7, wherein the controller (15) is arranged for controlling the select driver (16) and the data driver (10) to first bring, in at least a sub-area of the display, all the pixels (18) into the predetermined first optical state, and then the select driver (16) to supply the predetermined voltage level (Vpr) to all the select electrodes (17).

9. A bi-stable display as claimed in claim 7, wherein the touch sensitive display further comprises further touch sensitive switches (S2) being associated with the pixels (18) and being arranged between the select electrodes (17) and the data electrodes (11) of the pixels (18).

10. A bi-stable display as claimed in claim 7, wherein the touch sensitive display further comprises further touch sensitive switches (S2) being associated with the pixels (18) and being arranged between the pixel electrodes (22) and the data electrodes (11) of the pixels (18).

11. A touch sensitive display as claimed in claim 1, wherein the touch sensitive element (S1) has an impedance which decreases when a touch force is applied.
- 5 12. A touch sensitive display as claimed in claim 1, wherein the further touch sensitive element (S2) has an impedance which decreases when a touch force is applied.
13. A touch sensitive display as claimed in claim 11 or 12, wherein the touch sensitive element (S1) and/or the further touch sensitive element (S2) is a switch.
- 10 14. A display apparatus comprising a touch sensitive display as claimed in any one of the claims 1 to 13.